

## SEQUENCE LISTING

<110> THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF

<120> GENE ENCODING NADE, P75 NTR- ASSOCIATED CELL DEATH  
EXECUTOR AND USES THEREOF

<130> 59131apct

<140> PCT/US00/15621

<141> 2000-06-07

<160> 56

<170> PatentIn Ver. 2.1

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27

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<223> Description of Artificial Sequence:Unknown primer

<400> 5  
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<223> Description of Artificial Sequence:Unknown primer

<400> 6  
aaagcttagg gaggcacagc tgagaaa

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<223> Description of Artificial Sequence:Unknown primer

<400> 7  
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27

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 <223> Description of Artificial Sequence:Unknown primer

<400> 8  
 atccggagaa aggctaggga ggcaca 26

<210> 9  
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 <223> Description of Artificial Sequence:Unknown primer

<400> 9  
 tgtgcctccc tagcctttct ccggat 26

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 <223> Description of Artificial Sequence: Unknown primer

<400> 10  
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 <223> Description of Artificial Sequence: Unknown primer

<400> 11  
 atcggatccg aattcatcat ggtgatc 27

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 <223> Description of Artificial Sequence:Unknown primer

<400> 12  
atcggatccg ttagacagct ccccat 27

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<400> 13  
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<210> 14  
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<220>  
<223> Description of Artificial Sequence:Unknown primer

<400> 14  
atcggatccg atctctctca tctcctc 27

<210> 15  
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<212> DNA  
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<223> Description of Artificial Sequence:Unknown primer

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<212> DNA  
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33

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33

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33

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<223> Description of Artificial Sequence:Unknown primer

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26

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<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 22

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26

<210> 23

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Unknown primer

<400> 23

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<210> 24

<211> 27

<212> DNA

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<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 24

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27

<210> 25

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<212> DNA

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<223> Description of Artificial Sequence:Unknown primer

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tttctcagct gtgcctccct aagcttt

27

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<223> Description of Artificial Sequence:Unknown primer

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<210> 28  
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<223> Description of Artificial Sequence:Unknown primer

<400> 28  
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27

<210> 29  
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<220>  
<223> Description of Artificial Sequence:Unknown primer

<400> 29

atccggagaa aggctagga ggcaca 26

<210> 30

<211> 26

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<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 30

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<210> 31

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 31

ctagctagca tcatggtagag caagggcgag 30

<210> 32

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 32

ccgctcgagt cttgtacagc tcgtccat 28

<210> 33

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Unknown primer

<400> 33

aattgtctac gcaccccttat gggggagctg tctaac 36

<210> 34  
<211> 124  
<212> PRT  
<213> Mus musculus

<400> 34  
Met Ala Asn Val His Gln Glu Asn Glu Glu Met Glu Gln Pro Leu Gln  
1 5 10 15  
Asn Gly Glu Glu Asp Arg Pro Val Gly Gly Gly Glu Gly His Gln Pro  
20 25 30  
Ala Gly Asn Asn Asn Asn Asn Asn His Asn His Asn His Asn His His  
35 40 45  
Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile  
50 55 60  
Pro Asn Arg Gln Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met  
65 70 75 80  
Glu Met Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu  
85 90 95  
Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn  
100 105 110  
His His Asp His His Asp Glu Phe Cys Leu Met Pro  
115 120

<210> 35  
<211> 111  
<212> PRT  
<213> Homo sapiens

<400> 35  
Met Ala Asn Ile His Gln Glu Asn Glu Glu Met Glu Gln Pro Met Gln  
1 5 10 15  
Asn Gly Glu Glu Asp Arg Pro Leu Gly Gly Gly Glu Gly His Gln Pro  
20 25 30  
Ala Gly Asn Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg  
35 40 45  
Trp Ala Ile Pro Asn Arg Gln Ile Asn Asp Gly Met Gly Gly Asp Gly  
50 55 60  
Asp Asp Met Glu Ile Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys  
65 70 75 80

Leu Arg Glu Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu  
85 90 95

Leu Ser Asn His His Asp His His Asp Glu Phe Cys Leu Met Pro  
100 105 110

<210> 36  
<211> 13  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism: Segment of CZyxin  
protein

<400> 36  
Leu Thr Met Lys Glu Val Glu Glu Leu Glu Leu Leu Thr  
1 5 10

<210> 37  
<211> 13  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism: Segment of MAPKK  
protein

<400> 37  
Ala Leu Gln Lys Lys Leu Glu Glu Leu Glu Leu Asp Glu  
1 5 10

<210> 38  
<211> 10  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism:Segment of PKI  
protein

<400> 38  
Leu Ala Leu Lys Leu Ala Gly Leu Asp Ile  
1 5 10

<210> 39  
<211> 9

<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism: Segment of TFIIIA protein

<400> 39  
Leu Pro Val Leu Glu Asn Leu Thr Leu  
1 5

<210> 40  
<211> 9  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism:Segment of RevHIV-1 protein

<400> 40  
Leu Pro Pro Leu Glu Arg Leu Thr Leu  
1 5

<210> 41  
<211> 12  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism:Segment of RanBP1 protein

<400> 41  
Lys Val Ala Glu Lys Leu Glu Ala Leu Ser Val Arg  
1 5 10

<210> 42  
<211> 13  
<212> PRT  
<213> Unknown Organism

<220>  
<223> Description of Unknown Organism:Segment of FMRP protein

<400> 42  
Glu Val Asp Gln Leu Arg Leu Glu Arg Leu Gln Ile Asp

1

5

10

&lt;210&gt; 43

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Unknown Organism

&lt;220&gt;

<223> Description of Unknown Organism:Segment of Gle1  
protein

&lt;400&gt; 43

Leu Pro Leu Gly Lys Leu Thr Leu

1

5

&lt;210&gt; 44

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Unknown Organism

&lt;220&gt;

<223> Description of Unknown Organism: Segment of  
RexHTLV-1 protein

&lt;400&gt; 44

Ala Leu Ser Ala Gln Leu Tyr Ser Ser Leu Ser Leu Asp Ser

1

5

10

&lt;210&gt; 45

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Mus musculus

&lt;400&gt; 45

Met Glu Ser Lys Asp Gln Gly Val Lys Asn Leu Asn Met Glu Asn Asp

1

5

10

15

His Gln Lys Lys Glu Glu Lys Glu Glu Lys Pro Gln Asp Thr Ile Arg

20

25

30

Arg Glu Pro Ala Val Ala Leu Ile Ser Glu Ala Gly Lys Asn Cys Ala

35

40

45

Pro Arg Gly Gly Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Ala His

50

55

60

Tyr Arg Trp Asp Leu Met Gln Arg Val Gly Glu Pro Gln Gly Arg Met

65

70

75

80

Arg Glu Glu Asn Val Gln Arg Phe Gly Gly Asp Val Arg Gln Leu Met  
85 90 95

Glu Lys Leu Arg Glu Arg Gln Leu Ser His Ser Leu Arg Ala Val Ser  
100 105 110

Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro  
115 120 125

<210> 46

<211> 127

<212> PRT

<213> Homo sapiens

<400> 46

Met Glu Ser Lys Glu Glu Arg Ala Leu Asn Asn Leu Ile Val Glu Asn  
1 5 10 15

Val Asn Gln Glu Asn Asp Glu Lys Asp Glu Lys Glu Gln Val Ala Asn  
20 25 30

Lys Gly Glu Pro Leu Ala Leu Pro Leu Asn Val Ser Glu Tyr Cys Val  
35 40 45

Pro Arg Gly Asn Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Leu Gln  
50 55 60

Tyr Arg Trp Asp Ile Met His Arg Leu Gly Glu Pro Gln Ala Arg Met  
65 70 75 80

Arg Glu Glu Met Glu Arg Ile Gly Glu Glu Val Arg Gln Leu Met Glu  
85 90 95

Lys Leu Arg Glu Asp Gln Leu Ser His Ser Leu Arg Ala Val Ser Thr  
100 105 110

Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro  
115 120 125

<210> 47

<211> 125

<212> PRT

<213> Homo sapiens

<400> 47

Met Glu Ser Lys Glu Lys Arg Ala Val Asn Ser Leu Ser Met Glu Asn

1	5	10	15
Ala Asn Gln Glu Asn Glu Glu Lys Glu Gln Val Ala Asn Lys Gly Glu	20	25	30
Pro Leu Ala Leu Pro Leu Asp Ala Gly Glu Tyr Cys Val Pro Arg Gly	35	40	45
Asn Arg Arg Phe Pro Val Arg Gln Pro Ile Leu Gln Tyr Arg Trp Asp	50	55	60
Ile Met His Arg Leu Gly Glu Pro Gln Ala Arg Met Pro Arg Glu Glu	65	70	75
Asn Met Glu Arg Ile Gly Glu Glu Val Arg Trp Leu Met Glu Lys Leu	85	90	95
Arg Glu Lys Gln Leu Ser His Ser Leu Arg Ala Val Ser Thr Asp Pro	100	105	110
Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro	115	120	125

<210> 48  
 <211> 128  
 <212> PRT  
 <213> Rattus norvegicus

<400> 48
Met Glu Ser Lys Asp Gln Gly Ala Lys Asn Leu Asn Met Glu Asn Asp
1 5 10 15
His Gln Lys Lys Glu Glu Lys Glu Glu Lys Pro Gln Asp Thr Ile Lys
20 25 30
Arg Glu Pro Val Val Ala Pro Thr Phe Glu Ala Gly Lys Asn Cys Ala
35 40 45
Pro Arg Gly Gly Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Ser His
50 55 60
Tyr Arg Trp Asp Leu Met His Arg Val Gly Glu Pro Gln Gly Arg Met
65 70 75 80
Arg Glu Glu Asn Val Gln Arg Phe Gly Glu Asp Met Arg Gln Leu Met
85 90 95
Glu Lys Leu Arg Glu Arg Trp Leu Ser His Ser Leu Arg Ala Val Ser
100 105 110

Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro  
 115 120 125

<210> 49  
 <211> 117  
 <212> PRT  
 <213> Rattus norvegicus

<400> 49  
 Met Ala Ser Lys Val Lys Gln Val Ile Leu Asp Leu Thr Val Glu Lys  
 1 5 10 15  
 Asp Lys Lys Asn Lys Lys Gly Gly Lys Ala Ser Lys Gln Ser Glu Glu  
 20 25 30  
 Glu Ser His His Leu Glu Glu Val Glu Asn Lys Lys Pro Gly Gly Asn  
 35 40 45  
 Val Arg Arg Lys Val Arg Arg Leu Val Pro Asn Phe Leu Trp Ala Ile  
 50 55 60  
 Pro Asn Arg His Val Asp His Ser Glu Gly Gly Glu Glu Val Gly Arg  
 65 70 75 80  
 Phe Val Gly Gln Met Glu Ala Lys Arg Lys Ser Lys Glu Gln Gln Met  
 85 90 95  
 Arg Pro Tyr Thr Arg Phe Arg Thr Pro Glu Pro Asp Asn His Tyr Asp  
 100 105 110  
 Phe Cys Leu Ile Pro  
 115

<210> 50  
 <211> 118  
 <212> PRT  
 <213> Mus musculus

<400> 50  
 Met Ala Ser Lys Phe Lys Gln Val Ile Leu Asp Leu Thr Val Glu Lys  
 1 5 10 15  
 Asp Lys Lys Asp Lys Arg Gly Gly Lys Ala Ser Lys Gln Ser Glu Glu  
 20 25 30  
 Glu Pro His His Leu Glu Glu Val Glu Asn Lys Lys Pro Gly Gly Asn

35	40	45
Val Arg Arg Lys Val Arg Arg Leu Val Pro Asn Phe Leu Trp Ala Ile		
50	55	60
Pro Asn Arg His Val Asp Arg Asn Glu Gly Gly Glu Asp Val Gly Arg		
65	70	75
Phe Val Val Gln Gly Thr Glu Val Lys Arg Lys Thr Thr Glu Gln Gln		
	85	90
Val Arg Pro Tyr Arg Arg Phe Arg Thr Pro Glu Pro Asp Asn His Tyr		
	100	105
Asp Phe Cys Leu Ile Pro		110
115		

<210> 51  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 51
Met Ala Asn Ile His Gln Glu Asn Glu Glu Met Glu Gln Pro Met Gln
1 5 10 15
Asn Gly Glu Glu Asp Arg Pro Leu Gly Gly Gly Glu Gly His Gln Pro
20 25 30
Ala Gly Asn Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg
35 40 45
Trp Ala Ile Pro Asn Arg Gln Ile Asn Asp Gly Met Gly Gly Asp Gly
50 55 60
Asp Asp Met Glu Ile Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys
65 70 75 80
Leu Arg Glu Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu
85 90 95
Leu Ser Asn His His Asp His His Asp Glu Phe Cys Leu Met Pro
100 105 110

<210> 52  
 <211> 120  
 <212> PRT  
 <213> Rattus norvegicus

<400> 52

Met Glu Gln Pro Leu Gln Asn Gly Gln Glu Asp Arg Pro Val Gly Gly  
1 5 10 15

Gly Glu Gly His Gln Pro Ala Ala Ala Asn Asn Asn His Asn His Asn  
20 25 30

His Asn His Asn His Ser His Asn His Asn His His Arg Arg Gly Gln  
35 40 45

Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile Pro Asn Arg Trp  
50 55 60

Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met Glu Met Phe Met  
65 70 75 80

Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg  
85 90 95

Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn His His Asp His  
100 105 110

His Asp Glu Phe Cys Leu Met Pro  
115 120

<210> 53

<211> 124

<212> PRT

<213> Mus musculus

<400> 53

Met Ala Asn Val His Gln Glu Asn Glu Glu Met Glu Gln Pro Leu Gln  
1 5 10 15

Asn Gly Gln Glu Asp Arg Pro Val Gly Gly Gly Glu Gly His Gln Pro  
20 25 30

Ala Ala Asn Asn Asn Asn Asn Asn His Asn His Asn His Asn His His  
35 40 45

Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile  
50 55 60

Pro Asn Arg Gln Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met  
65 70 75 80

Glu Met Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu  
85 90 95

Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn

100

105

110

His His Asp His His Asp Glu Phe Cys Leu Met Pro  
 115 120

&lt;210&gt; 54

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

Met Glu Asn Val Pro Lys Glu Asn Lys Val Val Glu Lys Ala Pro Val  
 1 5 10 15

Gln Asn Glu Ala Pro Ala Leu Gly Gly Gly Glu Tyr Gln Glu Pro Gly  
 20 25 30

Gly Asn Val Lys Gly Val Trp Ala Pro Pro Ala Pro Gly Phe Gly Glu  
 35 40 45

Asp Val Pro Asn Arg Leu Val Asp Asn Ile Asp Met Ile Asp Gly Asp  
 50 55 60

Asp Met Glu Arg Phe Met Glu Glu Met Arg Glu Leu Arg Arg Lys Ile  
 65 70 75 80

Arg Glu Leu Gln Leu Arg Tyr Ser Leu Arg Ile Leu Ile Gly Asp Pro  
 85 90 95

Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro  
 100 105

&lt;210&gt; 55

&lt;211&gt; 700

&lt;212&gt; DNA

&lt;213&gt; Mus musculus

&lt;400&gt; 55

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 aggactacgc cgcaagggat aggccccagaa tagcaaccag gaaacaaaat ctcatcatgg 180  
 ccaatgtcca ccaggaaaac gaagagctgg agcagcccct gcagaatgga caggaagacc 240  
 gccctgtggg aggaggtgag ggccaccagc ctgctgcaaa caacaacaac aacaaccaca 300  
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 gggccattcc caacaggcag atgaatgacg ggttggtggg agatggagat gatatggaaa 420  
 tgttcatgga ggagatgaga gagatccgga gaaagcttag ggagctacag ctgagaaatt 480  
 gtctacgcac ctttatgggg gagctgtcta accaccacga tcaccatgat gaattctgcc 540  
 ttatgccttg acttcggtca ttccccctg agatccatac tgtgactccc gctgtagccc 600  
 ttttcctcgc attttctga catgccttta atgaccggtt tgtggtgagc cttgtgttat 660

ttccatgcc tgtgccaggt ggggcttgtg ttgccagtga

700

<210> 56

<211> 891

<212> DNA

<213> Homo sapiens

<400> 56

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